**STATEMENT OF**

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**ACQUISITION, TECHNOLOGY AND LOGISTICS**

**BEFORE**

**SENATE ARMED SERVICES COMMITTEE**

**SUBCOMMITTEE ON READINESS AND MANAGEMENT SUPPORT**

**HEARING ON ACQUISITION ISSUES**

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**Mr. Chairman and Members of the Subcommittee**

**I appreciate the opportunity to appear before you today to report on a wide range of acquisition issues. The principal goal of our acquisition policy has been to embrace and respond to change: dynamic and disturbing political and economic developments in the world around us, revolutionary advances in the technology available to us and our adversaries (especially in information technology), a fundamental re-evaluation of the likely scenarios of combat, a dynamic transformation in the weapon systems we develop to equip our warfighters, and a critical need to respond quickly and to adequately sustain the combat forces that protect us and our interests throughout the world.**

**I would like to give you my perspective on where we are today in providing our forces with the best equipment and support possible, where we want to be -- both in the**

**near future and within the next 10 or 20 years -- and how continuing our commitment to transform the way we fight and the way we do business will play a key role in that future.**

**For ease of reference, I've divided this report into six major sections:**


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## RESPONDING TO THE NEW WORLD ENVIRONMENT

**The 1997 Quadrennial Defense Review outlined the prospect of continued global dangers and established our strategic goals for meeting projected threats in the early 21st century. It is our strategy to promote regional peacekeeping efforts; to prevent or reduce conflicts and threats; to deter aggression and coercion; and to respond to the full spectrum of potential crises. In order to carry out this strategy, the U.S. military must be prepared to conduct multiple, concurrent, contingency operations worldwide. It must be able to do so in any environment, including one in which an adversary uses asymmetric means, such as nuclear, biological, or chemical weapons. Our combat forces must be organized, trained, equipped, and managed with multiple missions in mind.**

**The security environment in which we live is dynamic and uncertain, replete with a host of threats and challenges that have the potential to grow more deadly. We are not facing a few disorganized political zealots armed with pistols and hand grenades. Rather, we must defend against well-organized forces armed with sophisticated, deadly weapons and access to advanced information and technology. They represent a different and difficult challenge to forces organized and equipped around traditional missions (particularly when we must also continue to expend significant resources to be equally prepared for potential, more traditional missions).**

**Future, hostile forces are unlikely to attempt to match overwhelming U.S. superiority on a plane-for-plane, ship-for-ship, or tank-for-tank basis, but are more likely to use asymmetrical strategies against us -- including weapons of mass destruction,**

**"information warfare", and large quantities of relatively low-cost cruise and ballistic missiles. They can also utilize commercial navigation, communications, and imagery satellites.**

**The Defense Science Board, in its 1998 Summer Study Task Force Report on our response to transnational threats, warned that, today, even an adversary with a relatively small defense budget can become a significant regional threat and, increasingly, can project (or threaten to project) this threat worldwide. It noted that this smaller adversary can present a non-traditional military force as deadly and destructive as large conventional forces. Military conflict is being dramatically transformed by the rapidly-changing nature of modern technology.**

**Of course, this is nothing new. Throughout history, advances in technology have directly and indirectly transformed the course of warfare. From spear and longbow, to the invention of gunpowder and dynamite, to the use of aircraft and the machine gun, and on to chemical, nuclear, and biological weapons as well as the current information age, we have seen how revolutionary advances in weaponry have influenced the nature and extent of combat.**

## REVOLUTION IN MILITARY AFFAIRS AND BUSINESS AFFAIRS

**How do we counter this changing threat and keep ahead of accelerated modernization by the new adversaries facing us in the early 21st century? Clearly, we must**

**perform better than they do and retain our vast superiority in the quality of our personnel and in our force's mobility, global projection, and weapon technology. These, combined with "information superiority", will assure our nation's future security posture.**

**Our vision for the 21st century is a warfighter who is fast, lean, mobile, and prepared for battle with total battlespace situation awareness and information assurance. Our military strategy, as stated in the Joint Chiefs of Staff "Joint Vision 2010" posture statement, is to be based on Information Superiority -- real-time intelligence from "sensor to shooter". When combined with precision weapon delivery, this is the backbone of the "Revolution In Military Affairs" that will allow us to achieve total battlefield dominance.**

**To help pay for this Revolution in Military Affairs, Secretary Cohen announced, in November of 1997, the Defense Reform Initiative. The DRI, as it is called, is a basic restructuring of the way the Department does business. It calls for a "Revolution In Business Affairs". Although our military is unquestionably the strongest in the world, our defense establishment has labored under outdated and outmoded policies, procedures, and infrastructure -- designed to deal with a Cold War threat -- many of which are at least a decade out of date and far behind the private sector which, restructured and revitalized, is now competing strongly in a dynamic global marketplace.**

**Our defense industrial base has undergone necessary consolidation; and we, in turn, must capitalize on the lessons learned from the successful commercial transformation -- how to adopt modern business practices; consolidate and streamline; embrace competitive**

**market strategies; and eliminate or reduce excess support structures. Our future direction must include greater competition; greater civilian/military integration; and strengthened global links, in order to achieve the full potential of our defense industrial base.**

**Unfortunately, potential adversaries are able to rapidly capitalize on modern technology, for example: commercial communications/navigation/earth surveillance satellites, low-cost biological/chemical weapons, cruise and ballistic missiles, etc. If they can't develop them, they can purchase them -- and the skills to use them -- on the world arms market. Therefore, we must develop effective countermeasures to this technology; for example: information warfare defenses, vaccines and special medical agents to counter biological and chemical weapons, defenses against ballistic and cruise missiles, and the ability to destroy hard and deeply buried targets. In some respects, we have become the victims of our own technological advances. Our successes in using new technology to our advantage in operations such as Desert Storm and Bosnia have made those technologies an object for acquisition by all.**

**Yet we have no choice. We must develop the defenses and we must do so in a coalition context. For example, ballistic missile defense -- essentially hitting a bullet with a bullet -- poses a particularly difficult challenge; and deploying an integrated coalition theater missile defense system -- one that collectively hits all the incoming missiles instead of all of us going for the first one coming at us -- is an even more demanding technical and management problem. Unless all systems -- weapons communications and command and**

**control -- are fully interoperable, the complex job of theater missile defense cannot be effectively achieved.**

## BUDGET OVERVIEW

**The overall Defense budget can be viewed as a balance between funding for today's forces ("readiness"), funding to recruit, retain and equip the next force, and funding to develop the technology for the force after next (the latter two making up the DoD's short term and long term "modernization" accounts). The Services' request in FY 2001 for readiness (pay of personnel, training, maintenance of equipment, etc) represents 78% of the Army's budget, 62% of the Navy's budget, and 60% of the Air Force's budget. The funding required for short term modernization, for the next Army, the next Air Force, and the next Navy, consists of both procurement and test and development dollars. It also provides for the full-scale engineering development of new systems, for system upgrades, and for procurement of follow-on systems (so called "weapon modifications").**

**Overall, the combined modernization funding consists of procurement, as well as research, development, test, and evaluation (RDT&E). In RDT&E, 20% is science and technology (S&T) with the remaining 80% spread as 33% for Operational System Development, 23% for Engineering Manufacturing Development, and 18% for Demonstration and Validation. The remaining 6% is management support. This year the Department is requesting approximately $38B in Research and Development; of that amount, the science and technology request is $7.57B.**

**In the FY2001 budget request, after inflation (i.e. in real dollars), we increased our readiness accounts by +4%, our total research and development +8% and our procurement by +12%, over the FY2000 request. In the procurement area we meet our goal of $60B, and with our R&D we insure our long-term modernization – all while satisfying our critical short term readiness issues.**

## ACCELERATING OUR ACQUISITION REFORM EFFORTS

**Acquisition Reform began to take shape some seven years ago, in a vital and rewarding partnership between the Department and the Congress. The passage of the Federal Acquisition Streamlining Act, or FASA, sent a powerful message about the common commitment of the Congress and the Administration to meaningful, long lasting change in the way we conduct our business.**

**Another key legislative product, the Clinger-Cohen Act, which furthered acquisition reform, particularly in the area of information technology, again signaled the common vision and commitment of the Congress and the Department. Since the passage of Clinger-Cohen we have also initiated an extensive rewrite of key elements of the Federal Acquisition Regulation and the DoD 5000 series, all with an eye to improving communications between customer and supplier, accessing commercial technologies and availing the government of maximum flexibility to pursue the best and most innovative solutions available.**

**Despite our many successes to date, there is still much more we can do. We have numerous initiatives underway to accelerate the Department's progress toward achieving**

**this vision, many of which resulted from several key studies chartered in response to Congress's direction in Section 912(c) of The National Defense Authorization Act for Fiscal Year 1998. Congress directed the Department of Defense to identify key additional steps the Department could and should take to build on the acquisition reforms of the previous five years.**

**Through the Revolution in Military Affairs, previously described, the Department has committed to equip the early 21st century warfighter with the correct equipment to assure our security and withstand any potential threat by, among other things:**

- **achieving an integrated, secure, and "smart" command, control, communications, intelligence ($C^3I$) infrastructure;**
- **developing and deploying long-range, all-weather, low-cost, precise, and "brilliant" Reconnaissance and Strike weapons;**
- **achieving rapid force projection and global reach of our military capability;**
- **developing and deploying credible deterrents and counter-measures against the complete range of asymmetric weapons; and**
- **achieving interoperability among U.S. Forces and our Allies.**

**The pre-requisites to achieving the goals of the Revolution in Military Affairs are many and cut across all facets of the Department of Defense, particularly the arena of acquisition, logistics and technology. Yet, despite the now widely accepted precepts of the Revolution in Military Affairs, the Department continues to rely on acquisition processes, organizations and infrastructure largely developed in the years following World War II. Moreover, the Department continues to face a limited investment budget constrained by a**

**relatively stable top-line budget, and squeezed by increased operations and support costs from aging weapon systems.**

**In short, in order to meet the requirements of the Revolution in Military Affairs, it is equally important that the Department also wage a successful Revolution in Business Affairs.**

**To be sure, the Revolution in Business Affairs at the Department has been underway for several years and remains among the highest priorities of the Department's civilian and military leadership. Its primary focus has been on the following three top-level goals and corresponding objectives:**

***Goal 1:*** **Field high-quality defense products quickly; support them responsively.**

***Objective:*** **Reduce the average acquisition systems cycle time (measured from program start to initial operating capability) for all Major Defense Acquisition Programs (MDAPS) that started since FY 1992 by 25 percent (from 132 months to 99 months); and by 50 percent (to 67 months) for all programs started in FY 1999 or later.**

***Objective:*** **Reduce logistics response time from an average of 36 days (in FY 1997) to 18 days by FY 2000, with a stretch goal of 5 days in FY 2005.**

***Goal 2:*** **Lower the total ownership cost of defense products.**

***Objective:*** **Minimize cost growth in major defense acquisition programs to no greater than one percent annually.**

***Objective:*** **For fielded systems, reduce the logistics support cost per weapon system per year compared to an FY 1997 baseline as follows: seven percent by FY 2000; ten percent by FY 2001; and a stretch target of 20 percent by FY 2005. The FY 1997 baseline is $82.5 billion.**

***Goal 3:*** **Reduce the overhead cost of the acquisition and logistics infrastructure.**

***Objective:*** **Reduce the funding required by logistics and other infrastructure from 64 percent of Total Obligation Authority (TOA) in FY 1997 as follows: 62 percent by FY 2000; 60 percent by FY 2001; and a stretch target of 53 percent by FY 2005.**

**Our Department has made substantial progress on these goals and objectives:**

- **The average MDAP cycle time for post FY 1992 starts is projected to be 97 months—two months below the objective.**
- **DoD has met its 18-day target for the average time required to provide spare parts through the logistics system, and improved asset visibility and accessibility from 50 percent (FY 1996) to 94 percent (FY 1999). These initiatives have also had a profound impact on reducing supply inventory in the Department by $12 billion, from $67 billion (FY 1996) to an estimated $55 billion (FY 1999).**

- **Since FY 1998 (and projected through FY 2001), DoD's average annual MDAP cost growth has been .1 percent, -.3 percent, 3.1 percent, and .9 percent respectively.**
- **For FY 2000, weapon system logistics costs is $77.9 billion, just slightly behind the $76.7 billion target.**
- **The funding for logistics and other infrastructure is 60 percent of TOA in FY 2000—two percentage points better than the target.**

**The achievements are due in part to the fact that the three goals interrelate in a strategic way. They seek to remove the barriers to change and improve the Department's ability to be innovative in order to improve readiness and accelerate modernization. At the same time, the reverse is also true: in order to achieve the Department's readiness and modernization goals, the same degree of innovation we see today in our fighting forces must also become critical elements of our acquisition and logistics practices and processes.**

**In recent years, DoD has done much to improve its acquisition practices and policies through acquisition reform, and to transform its logistics systems to integrated supply chains driven by modern information technologies and a wide range of best business practices that have been proven in the commercial sector. For example:**

- **The Defense Acquisition Pilot Programs, which include five major weapon systems specifically identified by Congress to be test beds for many new acquisition practices, have yielded savings as high as 50 percent over previous, official cost estimates, and have been or are on schedule to be fielded far faster than DoD's normal 8 to 12 years. Most importantly, the first of these systems to be utilized in wartime---the Joint Direct Attack**

**Munition, which was deployed for the first time during the recent conflict in Kosovo, performed flawlessly.**

- **DoD is using credit cards for over 90 percent of its transactions below $2500, resulting in savings and cost avoidance to the Department in the hundreds of millions of dollars.**
- **The Single Process Initiative, which was launched as a means of eliminating duplicative processes and introducing appropriate, commercial-like processes at defense manufacturing facilities, has enabled the conversion of more than 200 facilities to ISO 9000 standards (replacing DoD's traditional and unique quality standards). It also has allowed the rationalization of numerous manufacturing processes, and much more, resulting thus far in savings and cost avoidance of over $500 million.**
- **The Department is pursuing innovative acquisition practices to further integrate the civil-military industrial base. For example, as a result of a manufacturing technology initiative, circuit boards for the F-22 are being produced on a commercial rather than a military line. This kind of practice will allow us to capitalize on advanced commercial technology and take advantage of large production runs -- thus saving 30 to 50%.**
- **DoD, with the help of the Congress, has dramatically altered the manner in which the Department deals with its suppliers. This has helped create an environment that fosters closer, ongoing communications, focuses more directly on actual performance rather than promises, and opens the door to**

**the kind of supplier alliances that have become hallmarks of excellence in the commercial world.**

- **DoD has significantly reduced the use of detailed military specifications and standards in favor of far greater use of commercial performance standards, thereby reducing costs and enabling access to a wider array of technologies and solutions.**
- **The Enterprise Software Initiative (ESI) is a joint project designed to implement a software asset management business process across the DoD. Leveraging the Department's considerable buying power quickly yielded $75 million in cost-avoidance on initial orders of leading-edge commercial software. Ten enterprise software agreements have been negotiated to date for DoD-wide use. A "software asset manager" will act as a virtual "item manager" for each agreement. Even greater return will accrue from software asset management practices soon to be supported through the DoD Electronic Mall (EMALL). The project is operated by 75 volunteer acquisition and IT professionals from 28 different DoD organizations.**
- **The use of Other Transactions Authority has enabled DoD to access dozens of commercial technology providers, that were otherwise unable to do business with the Department, in the research and prototyping of new, cutting edge technologies of importance to the Department.**
- **The Department has begun to aggressively pursue innovative, performance-focused logistics support strategies that are resulting in both improved**

**delivery and response times, while also enabling reductions in unnecessary infrastructure in the Department.**

- **DoD has reduced its acquisition and technology workforce by nearly 50 percent over the last ten years and continues to devote significant resources to defining the Department's long term workforce requirements, in terms of both skills and numbers, for the years ahead. The Department also has 104,500 participants (those currently a part of the DAWIA workforce, which equates to 72 percent of the newly defined "key acquisition and technology workforce"; the remaining 28 percent will be covered under new continuous learning policy to be issued in FY 2000) engaged in continuing education programs and training in FY 1999.**

**These are just a few of the many dramatic changes that have taken place, and continue to evolve, in the Department of Defense. Despite the exceptional progress that has been made, however, the Department continues to face daunting challenges in its efforts to truly transform its business and logistics practices and to meet the requirements set forth in the Revolution in Military Affairs. The studies conducted pursuant to Section 912(c) of FY 1998 Department of Defense Authorization Act were conducted to help the Department gain insight, in an integrated, across-the-board manner, into those areas where reform initiatives should be most focused.**

**The studies covered a wide range of issues: command, control and communications; the setting of weapon system requirements; the unique challenges of acquiring services (as opposed to products); the future of the Research, Development, Test and Evaluation (RDT&E) capabilities of DoD; Price Based Acquisition; re-engineering product support;**

**accelerating, implementing and managing change; and much more. The overarching findings of each study reinforce the necessity of significant, additional reform. For example:**

- **The RDT&E Infrastructure Study Team found that we have not reduced infrastructure by as much as we could -- at least 25 percent more could be attained by FY 2005. This will allow DoD to focus its R&D resources on those critical areas in which DoD's leadership and involvement is most necessary and valuable.**
- **The Product Support Study Team found that we have not done enough to transform the logistics system. We can expand the use of competitively sourced support for both new and legacy systems; improve reliability, maintainability, and sustainability through continuous technology refreshment; expand the use of prime vendor and virtual prime vendor support; reengineer financial processes; better integrate supply chains; and implement complementary information systems. The Program Manager Oversight of Life Cycle Support Study Team identified 30 pilot programs to serve as platforms to demonstrate these strategies. These Pilots are currently underway and are proving extremely valuable.**
- **The "Training and Tools for Acquisition of Services" Team found that we do not have sufficient performance-based training for acquisition of complex services. This is an area that must receive our increased attention as the U.S. economy, and the DoD, shift to greater procurement of sophisticated services.**

- **The Commercial Business Environment Study Team found that DoD has not done enough to accelerate cultural change -- we need to adopt an acceleration change model emulating best commercial practices.**

**The integrated perspective provided by the studies conducted under Section 912(c), more than anything else, makes clear the inextricable links among all aspects of the Acquisition process—from requirements generation and budgeting, to technology development, acquisition, and support. Thus, the Department's ongoing initiatives to accelerate change include all aspects of that process.**

**Moreover, the study process has also made unmistakably clear the fact that the Department is struggling, and will increasingly struggle, to keep pace with or access new, leading-edge technologies. Indeed, this finding, perhaps more than any other, speaks to one of the key focus areas of acquisition and logistics reform and the overall RBA: in the technology era of today, the Department, and the U.S. Government at large, are <u>no longer</u> the driving forces behind the development of many new technologies, including many critical new technologies required by the Department to meet its mission.**

**That technology development, including both functional technology and technology designed to support optimal business operations and support, is now often led by the commercial world, where research and development has increased steadily at a rate of about 5 percent per year for more than 20 years—while U.S. Government spending on research and development has dropped some 2.5 percent per year during the same period. It is clear that this growth in commercial technology is NOT going to be reversed, and that the Department must improve its ability to be a "player" in capturing the development of new technology in the commercial world.**

**Thus, wherever possible, the Department must adapt its business practices and systems to those that have been proven and are widely relied upon in the commercial world, and can no longer expect that world to adapt its practices to us. This can be, and has been, done in ways that fully protect the public dollar and interest, and the unique needs of America's military. But it is a reality we must face.**

**As noted earlier, DoD's Revolution in Business Affairs goals are clear: reduced cycle times for new weapons systems (which translates directly to our goal of providing new capabilities and support to the warfighter more quickly than ever before); reducing total ownership costs of our weapons systems (which translates directly to the freeing up of precious dollars for investment in new technologies and capabilities); and rightsizing our acquisition workforce and infrastructure (which ties directly to the Department's ability to both realize the savings and efficiencies of new ways of doing business and supporting our troops and systems in a manner that is optimally efficient).**

**Achieving that vision requires that DoD's acquisition and reform initiatives be built on several focus areas, each of which has its own set of outcome metrics that link each focus area to the Department's overall goals. Within the focus areas, DoD has identified a set of near-term actions to be completed within the next five years. Achievement of the actions identified for each focus area will be measured by a leading indicator of change.**

**1. DoD will adopt and rely on a new approach to systems acquisition where price and schedule play a key role in driving design and development, and systems are reviewed by portfolio. The warfighter must be in a position to place a dollar value on improved capability and choose among potentially dissimilar alternatives for achieving mission outcomes. Warfighter requirements must be flexible and respond to both the**

**needs of the user and the technological state of the possible. In the new systems acquisition environment, key acquisition and long term funding commitments will not be made until technology is mature and risks are far better understood (and strategies to mitigate them better developed) than is currently the case. By adopting a more time-phased, incremental approach to systems development (strongly encouraged by the Clinger-Cohen Act), the Department can and will field new technologies more quickly. This will also enable the acquisition of products on the basis of overall price and performance, which are clearly the most critical outcome requirements, as is the rule in the commercial technology world. The end result will be newer technology in the hands of the warfighter sooner; a wider, competitive marketplace from which to purchase needed solutions; and fewer dollars idling in the acquisition pipeline.**

**To accomplish this goal, the Joint Chiefs of Staff have already completed a rewrite of the Chairman's "3170 Series" to reflect flexible and time-phased requirements, interoperability as a key performance parameter, the use of capstone requirements documents for mission areas, and affordability in requirements documents. Currently, the OSD and Service staffs are engaged in a rewrite of the Department's "5000 Series", which sets forward DoD's guidance on systems acquisition. This rewrite will address evolutionary acquisition, portfolio oversight, increased technical maturity before starting acquisition programs, integration of acquisition and logistics early in the process, increased and continuous operational assessments, and more. My office, together with the DoD Chief Information Officer (CIO), are leading a DoD-wide Working-Level Integrated Product Team (IPT) to develop DoD Portfolio Oversight policy and guidance and a plan for transitioning the Department to this new way of doing buisness in all DoD mission areas by**

**FY01. All these changes will need support from Congress to be effective. Indicators for the transition to portfolio management and oversight will be developed by the end of this fiscal year.**

**Leading indicators of change include the number of MDAPs with cost as a key performance parameter and planned evolutionary acquisition strategies. The Department has targeted a 75 percent figure for FY 2005.**

**2. DoD will transform its mass logistics system to a highly agile, reliable system that delivers logistics on demand. Because we have been spending more than $80 billion annually on logistics but do not match performance (such as responsiveness or costs) to the logistics value chain, logistics reform is the critical link between modern warfighting and modern business practices. Our objective here is a much more rapid and dependable response at significantly lower costs -- something the commercial world has recently been achieving. The initiatives we are taking to implement logistics reform are outlined in detail in the Transforming Logistics section of my testimony.**

**3. DoD will reduce its acquisition infrastructure and overhead functions. With increased reliance on the commercial products, technology, and competitively sourced products, excess capacity will occur. Rather than retaining this excess capacity, DoD will streamline its management and financial information systems by large-scale adoption of proven commercial business processes in information technology and financial management.**

**To accomplish these reductions, DoD has created a blueprint for restructuring laboratories, research and development centers, and test facilities to continue to encourage intra-and inter-Service efficiencies. As we face the realities of a "graying" workforce, the**

**challenges posed by the downsizing of recent years, and the changing demands on its workforce, DoD has also launched significant initiatives focused on the workforce skills needed for the next century and how best to shape and mold the workforce to meet those requirements.**

**DoD is also working on initiatives to upgrade our facilities. One such initiative involves creating new housing stock for Service men and women and their families either by repairing the current housing, building new housing, or engaging in creative partnerships with private industry. The last of these (housing privatization) offers an enormous potential on which we simply must rapidly capitalize. In addition, DoD is moving towards privatization of utilities where that is feasible. Finally, DoD needs another round of BRAC to divest excess capacity. We will need help from Congress to achieve our goals in all these areas.**

**RDT&E infrastructure cost reduction is a leading indicator of change. DoD has targeted a 10 percent reduction by FY 2000 and a 25 percent reduction by the end of FY 2005.**

**4. The DoD workforce will be trained with the requisite skills to operate efficiently in this new environment and will perpetuate continuous improvement. In order to operate in this new environment, the acquisition workforce must have a complete understanding of commercial business practices and how to learn about and acquire both products and services. This knowledge will be obtained for both the individual and his/her work team through appropriate training via Defense Acquisition University courses, the latest technologies to bring education to the workforce, and an increased emphasis on courses available on the open market. This will increase the Department's training**

**throughput and help ensure that the workforce is receiving the appropriate balance of commercial and government-unique training competencies. Each practitioner's knowledge will be continually refreshed through continuous learning as changes in both the environment and in new processes and practices occur with particular focus on moving from transaction-driven work to the management of processes.**

**To accomplish this goal, the Department has already instituted a new continuous learning policy for the key acquisition and technology workforce. This policy mandates that each member of that workforce receive at least 80 hours of continuous learning every two years. In addition, the Department is expanding the scope of coursework available through technology-based learning (computer-based training, distance learning via the worldwide web, etc;) through the Defense Acquisition University and outside sources. During FY 2000, the Department will also provide to all members of the key acquisition and technology workforce both a catalog of coursework that is available as well as a "core curriculum", that is, a series of training modules, most of which will be available through distance learning technologies, that focus on key areas of change.**

**Significant among these initiatives are a new web-based course on commercial supply chain management developed, at no cost to the Department, by the National Contract Management Association (NCMA), in partnership with the National Association of Purchasing Management (NAPM), which has now been taken by more than 2000 members of the acquisition workforce. In addition, a special commercial practices "immersion" course is now provided by the Darden School of Business at the University of Virginia (through the Defense Acquisition University) for senior military and civilian acquisition leaders. The Department has also launched a full review of its acquisition management**

**courses (including a restructured approach to the Department's program management training) and has recently launched a major initiative to define the future acquisition workforce and develop a career management strategy designed to help ensure that the Department's career development program is in synch with its future workforce requirements.**

**One leading indicator of change is how much of the acquisition workforce is taking continuous education in identified focus areas. DoD has targeted that 100 percent of the acquisition workforce should be doing this within one year of the establishment of focus area courses.**

**5. A number of initiatives are underway to improve the acquisition of information technology (IT) within the Department. I have already mentioned the substantial cost savings from the DoD CIO's Enterprise Software Initiative and the DoD CIO's leadership in transitioning the Department to a Portfolio Oversight Process. The DoD CIO is ensuring Clinger-Cohen Act compliance on all major IT investments within the Department by serving as the Milestone Decision Authority for Major Automated Information Systems and by serving as a member of the Defense Acquisition Board for Major Defense Acquisition Programs. The DoD 5000 rewrite now underway will strengthen IT acquisition and implementation of the Clinger-Cohen Act by institutionalizing Portfolio Oversight, requiring certifications of Clinger-Cohen Act compliance before milestone approval for major automated information systems, and by requiring all mission-critical and mission-essential IT systems (including National Security Systems) to be registered in a DoD CIO-managed data base.**

**In addition, my office, together with the DoD CIO and the Joint Staff , are reengineering the Department's interoperability process to focus on the outcome-oriented demonstration of interoperability in a mission-based, "family of systems" context. This process will use jointly developed mission area architectures and use of Service and Agency systems engineering and test capabilities. Initially, the focus of the reengineered process will be at Joint Task Force level and would address the findings most recently reiterated in the Kosovo lessons learned -- specifically to mitigate the ad hoc nature of integrating the information technology needed to support JTF (and CJTF) operations.**

**The use of joint mission area (JMA) architectures in this process complements and improves the User Requirements Process -- historically embodied in Mission Need Statements, Operational Requirements Documents and Capstone Requirements Documents. The Joint Staff has begun the efforts to define the JMAs and to produce an initial version of the Joint Operational Architecture as a complement to our existing Joint Technical Architecture. The new interoperability process also includes a mechanism for making specific interoperability recommendations that are operationally relevant (mission outcome based) and programmatically synchronized to ensure proper coverage of both non-material and material across the life cycle. The USD(AT&L), DoD CIO, VCJCS, and CINC JFCOM each have significant responsibilities relating to interoperability. Operationally, the process will be enabled through a Senior Oversight Board composed of Flag Officer/General Officer/SES personnel representing the four individual Services and a new office called the Joint Information Integration Support Organization located on premises at the Joint Forces Command. Also under consideration as part of this new process is interoperability stabilization reserve funding that would fix interoperability**

**problems that cannot be effectively handled via the normal PPBS mechanisms due to urgency or small dollar value.**

**6. Acquisitions for services will increasingly become performance based as we continue to adopt best commercial practices and strive to achieve greater cost savings. However, we are re-examining how to accomplish this, prompted by a number of recent findings in this area. Last fiscal year, the Office of Federal Policy (within the Office of Management and Budget) reviewed several DoD service acquisition contracts and reported that in many instances, the contracts did not meet its criteria for performance based acquisition. In addition, the Section 912(c) study highlighted the need to provide training and tools to the workforce on how to define, acquire and manage service requirements, which was further supported by the findings from a recent DoD Inspector General audit.**

**Based on these findings, the Department is developing a new "acquisition for services" policy, along with goals, metrics and training initiatives to help implement it. The new policy will clearly establish the preference for performance-based strategies in acquiring services, along with training requirements for the relevant workforce. To support these training requirements, NCMA/NAPM have collaborated to develop an on-line performance-based services acquisition training course. The relevant workforce will be required to complete this course, or an equivalent, within the next 12 months. In addition, a Performance Based Service Acquisition Guidebook is being designed to assist the entire acquisition team, not just the contracting professionals, to better define service requirements and assist them in writing quality performance work statements, as well as improve other elements in the service acquisition process. The guidebook will also include**

**other reference items such as guiding principles, coaching tips and links to related reference documents.**

**The indicator of change is that a minimum of 50 percent of all service acquisitions are performance-based by 2005.**

**7. The DoD will institutionalize continuous improvement, or change management, throughout the DoD enterprise to ensure a virtual learning environment. World-class companies have adopted systematic change models, which have enabled them to become more efficient and to continue to maintain their competitiveness in the global marketplace. Utilizing a systematic model allows companies to implement change initiatives quickly and efficiently across their organizations and to maintain a culture of continuous change. DoD will routinely use a proven enterprise change model to rapidly implement the business process changes required to better support the warfighter. To accomplish this goal, the Department and its leadership will:**

- **Provide commitment and continuing advocacy of change. They provide the vision, goals, and recognize change agents;**
- **Establish action acceleration workshops to identify and train change agents;**
- **Initiate rapid improvement teams (RITs) to change specific processes and cultures;**
- **Create a change management office to sustain endeavors begun under the change management model; and**

- **Ensure accountability of the business unit manager and their teams to implement and achieve bottom line objectives of the enterprise and business unit.**

**Enterprise "outcome-driven performance scorecards" will be developed for each performance outcome goal and used to measure progress against established outcome-driven performance baselines. The scorecards will measure:**

- **Attainment of DoD desired performance outcomes;**
- **Customer/supplier/employee satisfaction; and**
- **Achievement of reform targets.**

**Leading indicators of change in this area will be measured by the annual acquisition reform survey. For the next survey, DoD has targeted a 50 percent increase in the extent acquisition reform initiatives are impacting people's jobs and a ten percent decrease in neutral or negative support for reform from management.**

**Acquisition reform represents a significant cultural change for the Department's acquisition and technology workforce. Given the size and complexity of the Department, the changes that have been realized in just five years are remarkable. Moreover, as the results to date listed earlier indicate, our internal measures clearly document significant progress as well.**

**Yet, despite the commitment of senior management and much of the workforce to DoD's goals and their implementation, resistance to change is still too often encountered from the workforce and its managers. Too many still cling to traditional acquisition and logistics practices. Others have not become fully knowledgeable about the flexibility of**

**acquisition and logistics reform and the direct benefits of accelerating reform progress across the Department's acquisition and logistics processes. In many other cases, the workforce simply has not yet been provided the requisite tools with which to effectively execute the mission they have been given.**

**The "road ahead" for the Department, therefore, is focused on both additional change and a series of initiatives designed to ensure DoD becomes a learning organization that embraces performance-based, commercial business best practices and processes, empowers its workforce, and achieves optimal solutions at affordable costs in order to field the most technologically advanced, best-equipped, and most mission capable fighting forces in the world to come. It will take commitment and hard work across the Department's business communities to accelerate progress. Given the progress that has been made to date, there is every reason to believe that the Department will achieve that fundamental goal.**

## TRANSFORMING LOGISTICS

**As I have mentioned, transforming DoD logistics to meet the requirements of the 21st Century is an especially urgent national challenge. We use the term "transformation" to emphasize that continued incremental improvements within our existing logistics functions and information systems support will not be sufficient to meet the demands of our national and military strategies.**

**Our need for logistics transformation is driven by our emerging operational concepts developed by the Joint Staff and the Military Departments in response to**

**projected threats. These operational concepts -- Joint Vision 2010, Air Expeditionary Force, Army-After-Next, and Maneuver Over the Sea -- embed implicit and explicit logistics performance requirements for speed, precision, agility, and real-time situational awareness. These requirements simply cannot be met through incremental improvements.**

**The Department has made great strides in improving our inventory management practices. Today, we can pick, pack, and ship from our distribution depots within four hours of receiving a requisition. Unfortunately, the item may then be "handed off" to our transportation system where it may sit waiting for a "full load," regardless of priority. This delay is driven by "operational efficiencies" within our transportation system (why fly a half-full plane?) versus the use of pre-scheduled routes (such as FedEx).**

**Similarly, because our maintenance depots are driven by direct labor hour efficiency, we defer induction of a particular item until we have "enough" of them to justify a production "run". This apparent efficiency totally ignores whether the item is desperately needed by our warfighters, whether the item is redlining a major weapon system, or whether the item is going back to a supply depot. Like-wise, our contracts for maintenance support often include only a generalized specification for delivery of repaired items, e.g., 90 or 120 days. This too, results in repair and availability of reparables outside the context of real, warfighter-driven needs.**

**Finally, because our maintenance workforce at all levels has been fully sensitized to reduce material costs, we are seeing an increased "recycling" of parts (reparables and consumables). This activity is most pronounced at our maintenance depots, where after induction, we often lose visibility and item integrity of our reparables. As a result, we are putting old parts in new reparables, with the net effect of "producing" old reparables. An**

**example of this is the T-55 engine, which has numerous interchangeable parts with other engines. With a brand new engine, we realize 772 hours "on wing time" for the T-55; however, after depot maintenance (with insertion of interchangeable parts) we are realizing geometric reductions in "on wing time" to 109 hours after its sixth visit to the depot. This example is repeated across many of our reparables because of our lack of in-process visibility and our inherent "incentives" within our depot processes to reduce apparent material costs -- and it is an issue we must certainly address in our contracts for maintenance support.**

**What we are doing is not a radical departure to some unproven logistics model. U.S. industry moved to a customer-focused logistics model during the late 1980s and early 1990s. This move enabled world-class firms to reduce logistics costs by 40 percent, while improving customer service and, thus exploit logistics services as a competitive advantage. Those world-class firms achieved those dramatic results by concentrating on three strategic elements: First, segmentation of their logistics infrastructure and processes to focus on the specific requirements of customer market segments. Second, integration of their logistics chains through contemporary information systems so that all suppliers, partners, and distributors could optimize performance to customer requirements. Third, strategic partnerships based on comparative advantage so that all participants in the logistics chain contributed based upon "what they were really good at."**

**The Department and our partners in industry have achieved dramatic improvements over the last three years. Since 1997, we have reduced average logistics response time (time from requisition to receipt of material) by 50 percent, reduced secondary item inventory by $12 billion, and increased in-storage asset visibility to 94**

**percent. And, we made these improvements while supporting one of the highest operational tempos for the Department since World War II.**

**However, much remains to be done. In 1999, we completed four strategic efforts directed toward charting the course of logistics transformation:**

**First, we developed a Logistics Strategic Plan that, for the first time, was developed by the Department's senior logisticians and focused on Department-wide performance. This year's plan is concise and focused on six strategic objectives. They are optimize support to the warfighter, meet mobilization/deployment requirements of the national defense strategy, implement customer wait time as the logistic metric, achieve comprehensive joint total asset visibility, modernize logistics information systems and processes, and reduce logistics costs.**

**Consistent with our organizational structure, the Military Services, DLA, and USTRANSCOM are developing implementation plans to meet these objectives. The plans will be submitted for approval in May 2000, concurrent with the Service POM submissions. This will enable us to directly link the implementation plans and required resources.**

**Second, in response to Section 912 of the 1998 Defense Authorization Act, we chartered a Product Support Reengineering Implementation Team in September 1998. That team, composed of over 100 representatives from the Services, DLA, Joint Staff, USTRANSCOM, OSD, and industry, completed an exhaustive review of DoD product support practices and comparison of those practices to world-class best practices. The team's final report was published in July 1999 and provided a 5-year roadmap for implementing best practices, increasing modernization through spares, and competitively**

**sourcing product support. This effort includes 30 pilot programs that we are currently implementing and thoroughly evaluating.**

**Third, a logistics information systems baselining and analyses was completed as part of the Department's Y2K efforts. We catalogued and assessed over 1,000 functionally stovepiped logistics information systems and modeled over 100 mission-critical systems. This effort serves as a solid baseline for logistics systems modernization.**

**Today, we are extending our mission-critical model to include all logistics information systems and assessing both vulnerability and functionality, consistent with the requirements of Clinger-Cohen. This area is so vital to our national security that my Principal Deputy is conducting weekly reviews.**

**Fourth, and finally, in 1999 we established a Logistics Architect. The primary mission of the Logistics Architect is to design and guide the implementation of DoD's logistics system to inherently meet the operational requirements of the next century. Currently, we are sponsoring competing, independent contractors to assess our performance requirements and develop preliminary architecture designs. The initial findings of these efforts will be provided in May, 2000 to support our summer POM review.**

**We are also implementing several key near-term actions to transform our logistics system. "Customer wait time," versus wholesale logistics response time, is being developed as the key DoD logistics metric. This effort will include variance analyses and provide for customer-driven cycle time optimization across every node in the logistics chain. We expect "customer wait time" to be fully implemented by the end of FY01.**

**We are adopting a simplified priority ordering system that reflects true customer requirements. Today, across our supply and transportation systems we have up to 15**

**different priority codes that, quite simply, confound the delivery process and create unnecessary work and delays. This effort will include movement to a time-definite delivery standard and accurate asset visibility across the entire pipeline. We are committed to completing this transition by the end of FY04.**

**Our efforts to move to a more responsive, customer-focused system are driven by operational needs and supported by rigorous and prudent analyses. This transformation will be enabled by timely modernization of our logistics information systems to provide secure, seamless information and management consistent with warfighter needs.**

## DEFENSE INDUSTRIAL BASE CONSIDERATIONS

**The current status and the future of the U.S. defense industrial base are critical issues for the Department of Defense as we enter the 21st century. As you know, the defense industry has recently gone through -- and is still going through -- a major transformation. This transformation has been driven by three important events:**

1. **A dramatic reduction in defense procurement (a 70 per cent decline) following the collapse of the Soviet Union;**
2. **A re-orientation of our vision of likely combat scenarios as required to counter the new and likely threats we and our allies face in the next few years; and**
3. **A recognition of the change in the nature of warfare itself (as brought on by the information revolution).**

**Consolidation within the defense industry is the most obvious change brought on by the shrinking budgets. Today, there are a small number of large defense firms remaining. The top five firms today were 50 firms just a few years ago. This activity is likely to continue -- particularly at the subtier level; and the Department will, as always, approve those that produce efficiencies and do not significantly reduce competition. This consolidation was both desired and necessary. The GAO found that, in just three years, we saved more than $2 billion.**

**Industry consolidation is not the only dramatic change. Just a few years ago, performance was our sole benchmark for developing new weapons systems; today it is performance at an affordable cost -- specifically, costs that will allow us to obtain the quantities required. Today, "cost" is a requirement that must be considered at every stage of our acquisition process -- while still continuing to enhance weapons' performance. Thus, not only is the ongoing industry shrinkage necessary; it must also be accompanied by greatly improved efficiency. In fact, as we now build up our procurement dollars, to make up for the "modernization holiday" of the last decade, it is even more critical that we gain the improved efficiencies in order to obtain the quantities of equipment required.**

**This revolution in our defense business affairs -- and a corresponding transformation of our defense industry -- was badly needed, and must continue. However, given the absolute necessity of consolidating and restructuring our defense industry -- in order to meet shrinking budgets, new threats and new technologies -- we have nonetheless seen some potentially troubling results.**

**Today, there exist two or three major (robust and technologically superior) firms in each critical area of defense needs. However, with the potential to go even below that**

**number in the future, we are in danger of losing our greatest weapon in containing costs and insuring rapid innovation: namely, competition.**

**After a period of Wall Street exuberance over the Merger and Acquisition activities of defense firms during this consolidation period, several of the firms (for a number of reasons) have not met their earnings expectations, and their stock prices have plummeted -- pulling the rest of the industry down with them. With industry stocks down, reduced earnings, and debts up (due to the acquisitions), it is more difficult to generate the investments required to support future R&D and capital equipment needs. Clearly, these firms are in a transition period, as they seek to adjust to the major consolidations of recent years and to rationalize their operations. Also, because of the end of the Cold War and the prospect of declining defense budgets, many firms that had previously operated in both the commercial and defense fields chose to sell-off their defense businesses, thereby increasing the isolation of the defense sector from the rapid advances of commercial technology and the exploding market growth in the commercial sector.**

**Finally, because of the continuation of outmoded export control policies and practices, defense industries in both the United States and allied European and Asian countries have attempted to remain autarkic -- a self sufficiency that is counter to the needs and realities of a world of coalition warfare and industrial globalization.**

**Maintaining competition is a major factor in our ability to carry out the Revolution in Business Affairs; our ability to modernize our existing weapons systems -- many of which will be with us far into the 21st century; and our ability to develop and field the new systems, and systems-of-systems, we will require to meet the growing 21st century threat. Competition clearly influences costs. But it is also the driving force behind innovation. If**

**we do not have a competitive defense industry, we lose out on both of our major weapon system objectives -- affordability and high performance.**

**With regard to competition, there is, however, a caution that must be observed; namely, that there are various forms of competition and some -- such as awards solely on the basis of lowest bid -- can be very destructive. The result would be weak firms, unable to attract the best and the brightest, and unable to make the desired investments in Research and Development and capital equipment. So our competitions must be for "best value"; where price and performance are valued, and where companies are rewarded (with additional business) for good performance -- not just penalized for poor performance.**

**Thus, it is the government's responsibility (under the unusual market condition of a monopsony buyer "controlling" a few oligopoly suppliers) and it is clearly in the national interest (in the absence of "normal" market forces) for us to create an enabling environment to ensure a competitive, healthy, and technologically-advanced defense industrial base. Most important, it is vital to our national security and to our commitment to our nation's warfighters, to ensure that our acquisition policies promote a strong, competitive, healthy, and innovative defense industrial base. So it is appropriate for us, at this point -- given the potential industrial problems described -- to assess whether our current policies can be further improved; so that our primary sources of military equipment have the proper incentives to provide us with equipment of the highest performance at the lowest cost. And, if not, we must make the required changes in our DoD practices, where we can, or through remedial legislation where required.**

**There is no doubt that we, the Department of Defense, as well as our defense equipment suppliers, are facing tough challenges today and will continue to do so as we**

**readjust and recharge to meet the demands for higher performance at lower cost; for competition; and for innovation.**

**To meet these tough challenges, the Department of Defense is working to transform, not only the way it does business, but also the way it works with industry to create a true working partnership that promotes greater opportunities for our defense industrial base and -- most important -- produces much better performance at much lower cost for the weapon systems we produce for our warfighters. Some of these actions include:**

- **<u>Civil/Military Integration</u>:**

**We must view the DoD as one of many smart buyers of specialized goods and services from leading-edge firms. This requires aggressive acquisition reform efforts, such as greatly expanded use of "other transactions authority" and elimination of and/or simplification of defense-unique cost accounting and procurement practices. Such actions will bring in commercial firms and reward all firms for high performance and lower cost -- and save us billions of dollars each year. The Defense Authorization Act for this year allowed us to reduce the number of industrial units covered under specialized government cost accounting rules by more than 40 percent, while still keeping more than 94 percent of the dollars covered. For those units still covered, we now need to further simplify the special (government-unique) requirements -- while still maintaining adequate oversight. Recently, the Cost Accounting Standards Board agreed to initiate a clause-by-clause review, with the objective of significant simplification. Where we have waived specialized government requirements -- not only accounting requirements, but essentially all others -- and allowed firms to build defense-unique items on the same line as commercial items**

**(whenever flexible manufacturing allows comparable processes to be used), the savings have been 30 to 50 percent!**

**We clearly must move toward greater civil-military industrial integration. Many of our current acquisition reforms have this specific objective.**

- **<u>Globalization</u>:**

**We must promote the creation of transatlantic and transpacific industrial structures (joint ventures, partnerships, teams and acquisitions) whenever these can be pro-competitive and security-enhancing. This requirement comes directly from the military necessity for equipment interoperability in the likely environment of coalition operations, and it also clearly recognizes the general industrial trend of globalization. However, we must make specific changes in U.S. export controls and modernize other rules and processes, including industrial security and Foreign Military Sales, if we are to achieve it. The current system is simply not working, and is not prepared for the challenges of a 21st century defense (and global) business environment. I have attached an Appendix to this testimony which contains a selection of "Export Control Horror Stories" which highlight current difficulties.**

**We have a broad set of initiatives under way -- working closely with our Policy organization and the State and Commerce Departments -- to modernize our export controls so that they are consistent with the needs of coalition warfare and the rapid spread of technology around the world. We have also taken steps (and we have more underway) to facilitate streamlining of industrial security structures; of course, in a manner fully consistent with our security needs.**

**Also, we can not allow the nationalistic selection of suppliers by North American, European, and Asian defense industries to cause a political and technological wedge to be inserted between us and our allies. Efforts by firms to explicitly "design around" and exclude products from foreign firms would be counterproductive -- and certainly should be discouraged by governments. Clearly, such a global perspective will require a change in traditional ways of thinking. We will have to be more willing to share leading-edge military technology with our allies (something we have recently begun to do) and they will have to be extremely rigid in controlling that technology. In this latter regard, we have begun working closely with our allies to assure that this will be done -- not only in law, but also in practice (a more difficult challenge in a multinational, cyber environment).**

- **Rationalization of recent restructurings.**

**Both in the United States and elsewhere, the potential benefits of merger and acquisition activities must be fully realized. This means further changes by the firms in order to get the best value for our defense investments. For example, as Raytheon has consolidated missile production in its facility in Tucson, Arizona, we have already seen actual weapons price reductions of up to 25 percent. To stimulate much more of this type of government savings resulting from industry actions to consolidate and restructure, I believe we must create a way to share the benefits of these actions with industry. Perhaps an approach such as the Value Engineering Program, which shares the benefits between industry and government for the first few years after the industry-initiated change is implemented, would create the appropriate incentive to industry. This would be a "win-win" initiative -- for both the government and industry.**

- **Maintaining Competition:**

**This is necessary in all critical sectors. When a contract award or a funding of a single program will result in only one contractor remaining in any critical area (prime or sub), the DoD (as the sole buyer of weapons systems) must consider ways to maintain the potential for future competition. In many programs, this means carefully considering industrial base concerns as a key ingredient in shaping the acquisition strategies. In others, it means taking an industry-wide look at what current and future modifications, other programs, and Research and Development efforts are available -- or potentially created -- to maintain a sufficient number of competitive firms in all critical areas.**

**I have recently directed the Office of Industrial Affairs to work with the Services, industry, and outside consultants to identify areas of problems in maintaining competition and to seek to develop appropriate approaches.**

- **Competitive Sourcing of all non-inherently governmental work:**

**We must reduce infrastructure to generate more dollars for modernization. Regardless of who wins (government or industry), empirical data show that performance improves and prices go down from competitive sourcing. In examples of public/private competition, numerous studies have shown that, for more than 2000 cases, average savings are 20 percent when the organic workforce wins; and 40 percent when the private sector wins. Since, to date, the winners have been split about evenly, we have an average of 30 percent savings -- with higher performance.**

**I might add that, when competing all non-inherently governmental work, we should encourage -- not only public/private competitions -- but also public/private partnerships. Some of the recent large awards (to both the public sector and to the private sector) have utilized such partnerships, which take full advantage of the competencies of each sector.**

**Additionally, in this area of competitive sourcing, we will soon be issuing DoD guidance to our people on the most effective and fair way for implementation. And we will be providing added training to our procurement people to implement this guidance.**

- **<u>Attracting small, hi-tech, innovative firms to defense</u>:**

**We need to encourage defense initiatives that will bring in small firms to work for the Department of Defense and its prime contractors. DARPA, for example, does cutting edge research in biotechnology, advanced information systems, advanced materials, and other innovative technologies for future defense needs. This follows on the brilliant earlier work this agency performed on the Internet, stealth technologies, and communications satellites. Looking for new firms (often commercially-oriented) as well as our traditional ones, to support such research can bring in new ideas and foster work by small, innovative, hi-tech firms, and will stimulate the larger firms by providing competition. Here, I might point to the new initiatives underway in such areas as the Small Business Innovative Research Program, the Mentor-Protégé program, and the new Challenge Program. These initiatives are all oriented to focus the small, minority and disadvantaged firms on innovation and competition.**

- **<u>Making changes in our Procurement policies and practices to strengthen the defense industrial base:</u>**

**In view of the industrial structure transformations that have occurred, the changed nature of required military equipment, and -- particularly -- the rapid evolution and spread of commercial information technology (with whole new generations of technology, often at lower costs, every 18 months, or less), it is appropriate for us to re-evaluate our current acquisition and procurement practices to see if there are actions we can take to**

**simultaneously strengthen our defense industrial base while gaining added cost and performance benefits for the DoD. A Defense Science Board Task Force is currently at work to help us in this evaluation. They are listening to experts from all fields -- Congress, Universities, Government, Wall Street, and representatives from both the commercial and military industries, and will brief us this Spring on their findings. We have already begun to identify a number of promising changes that will simultaneously benefit both the DoD and industry. Our focus of this effort will be on implementation actions, not on study reports.**

## CONCLUSION

**In summary, advances in technology and increasingly volatile geopolitical situations point to a world which will become more violent, possibly more hostile, certainly more unpredictable, and increasingly filled with adversaries possessing sophisticated, militarily-relevant technology. At the same time, we are revolutionizing the way we view the battlefield and how we equip our warfighters to fight on it. And we continue to re-examine how we do business, how we develop technology, how we support those systems, and how we will be able to afford a 21st century force. But ours is, admittedly, not a "small and agile institution;" And the questions and considerations involved -- the "business that we are in" -- is perhaps the most serious possible. Our responsibility to be ready today, while preparing for tomorrow, dictates this be an evolution towards a new way of fighting, of buying, building, and supporting. You in Congress are our partners in this enterprise, and we cannot succeed without your continuing vision and support of our efforts. I look forward to working closely with you as we continue this endeavor.**

# APPENDIX -- Export "Horror Stories"

## *1. Process is not built for a modern interconnected world-wide industry / handicaps US firms in competition abroad:*

GERMANY: A German firm is evaluating how long it would take to replace all of its U.S. satellite component suppliers with non-U.S. companies. They say they cannot afford to rely on American subcontractors that are not allowed to export to them except under difficult conditions.

GERMANY: A German government official stated: "If we cannot work together, then we in Germany and Europe will develop second sources outside the United States. It is not just space. It is defense cooperation that has been made difficult now. It will take several years to develop alternate sources, but the U.S. is forcing us to do this."

NETHERLANDS: A U.S. company license request to modify helicopter radios for the Dutch to ensure NATO interoperability was turned down. Another U.S. company waited seven months for a license to supply technical data to a Netherlands contractor that was building components for a U.S. fighter engine.

JAPAN: A U.S. firm with offices in Japan said the lengthy U.S. export approval process already knocked their company out of the bidding as a subcontractor for a spacecraft being built by the National Space Development Agency.

## *2. Process takes too long:*

EUROPE: By the time a major U.S. electronics company received a State Department license to bid to sell electronic modules worth more than $50 million for European commercial satellites, the exasperated spacecraft builder had turned to suppliers in Europe and Japan.

NETHERLANDS: The Dutch submitted a request to receive digital maps of Bosnia for use in their Chinook CH-47s supporting UN peacekeeping operations in the area. The export license request took almost three months to review even with Dutch Embassy requests for expedited handling of the license application because of the deteriorating situation in Kosovo. As a result, the helicopters were not employed in Bosnia.

## *3. Process doesn't reflect real world situation:*

JAPAN: A U.S. firm said in Congressional testimony that a longtime Japanese customer expressed his concern (quite bluntly) that buying a $100 million commercial communication satellite from the U.S. is definitely one of the most ridiculous, discouraging, and unfair policies ever carried out and a disgrace to our relationship as well as the competitive power of U.S.

manufacturers. The customer added that if this policy is not changed soon, he is going to seriously think about any European company as an alternative.

ITALY: U.S. Company License request to sell Air-Sea Rescue Flares to the Italian Coast Guard to use to rescue NATO airmen during the Kosovo crisis was initially turned down even though it was eventually approved and is a product that had already been approved for sale to 30 countries.